IN THE CLAIMS:

Amend claims 1-4, 6 and 8-17 as follows:

1. (Currently Amended) A gear mechanism, comprising:

a rotatable first gear having a plurality of teeth; and

a rotatable second gear having a plurality of teeth;

where a profile of a surface face of each of the plurality of teeth of the first and second gears includes both a concave region and a convex region that collectively span a height of each of the plurality of teeth of the first and second gears; and

where when the first and second gears rotate with respect to each other a portion of the concave and convex regions of one of the first and second gears mesh with a portion of the convex and concave regions, respectively, of the other one of the first and second gears during the rotation of the first and second gears such that linear contact occurs between the surface faces of the first and second gears, and where the linear contact occurs over the height of each of the plurality of teeth of the first and second gears during rotation of the first and second gears~~Actuator in an automotive vehicle, especially, power-assisted steering coupled to a steering column, with a gear and a mating gear each having teeth via which they engage with each other, movement and power being transmitted from the gear to the mating gear via effective profiles of their tooth faces and where each tooth face comprises a concave region and a convex region, characterized in that the effective profiles of the tooth faces of the gear and the mating gear are made such that a linear contact over the height (h_4, h_5) of the teeth comes about when the teeth mesh, the contact being formed in such a way that always convex and concave faces of the teeth of the gear and mating gear are in contact with each other~~.

2. (Currently Amended) The ~~actuator~~ gear mechanism of claim 1, where~~in~~ the convex region is piecewise convex with an ~~least~~ approximate~~ly~~ equal curvature of the surface ~~tooth~~ face of a tooth of the first ~~mating~~ gear that corresponds ~~assigned~~ to the concave region of the surface ~~tooth~~ face of a tooth of the second gear.

3. (Currently Amended) The ~~actuator~~ gear mechanism of claim 1, where~~in~~ the concave region is piecewise convex with an ~~at least~~ approximate~~ly~~ equal curvature of the surface face of a tooth ~~face~~ of the ~~mating~~ first gear that corresponds ~~assigned~~ to the convex region of the surface ~~tooth~~ face of a tooth the second gear.

4. (Currently Amended) The ~~actuator~~ gear mechanism of claim ~~1~~3, where~~in~~ the concave region is disposed in a region adjoining a ~~tooth~~ base of a tooth and the convex region is disposed in a region adjoining a ~~tooth~~ tip of a tooth.

5. (Cancelled)

6. (Currently Amended) The ~~actuator~~ gear mechanism of claim 1, where~~in the gear mechanism comprises~~ the first gear comprises a worm gear ~~mechanism that includes a worm gear~~ and the second gear comprises a worm.

7. (Cancelled)

8. (Currently Amended) The ~~actuator~~ gear mechanism of claim 1~~7~~, where~~in the tooth~~ thicknesses of the teeth of the first ~~worm~~ and second gears ~~and the worm~~ are adapted to the material properties of the ~~material pairing of the~~ first and second gears.

9. (Currently Amended) The ~~actuator~~ gear mechanism of claim 8, where~~in~~ the ~~tooth~~ thickness of the teeth of the first ~~worm~~ gear is greater than the thickness ~~that~~ of the teeth of the second gear~~worm~~.

10. (Currently Amended) The ~~actuator~~ gear mechanism of claim 1~~9~~, where~~in~~ the first ~~worm~~ gear is ~~made~~ cylindrical in shape.

11. (Currently Amended) The ~~actuator~~ gear mechanism of claim 1~~0~~, where~~in~~ the second gear~~worm~~ is ~~made~~ globoidal in shape.

12. (Currently Amended) The ~~actuator~~ gear mechanism of claim 1, where~~in~~ the profile of the surface face of each of the plurality teeth contains no ~~tooth geometry of the teeth is formed without~~ involutes.

13. (Currently Amended) The gear mechanism ~~actuator~~ of claim 1, where the first gear ~~worm~~ is metallic and the second ~~worm~~ gear is plastic.

14. (Currently Amended) The ~~actuator~~ gear mechanism of claim 1, where each tooth ~~the teeth~~ of the first and second ~~worm and worm~~ gears ~~has~~each have a~~the~~ concave surface face

profile in ~~a the~~ region near ~~a the tooth~~ base of the tooth and ~~a the~~ convex surface face profile in ~~a the~~ region near ~~a the tooth~~ tip of the tooth.

15. (Currently Amended) A gear assembly, comprising:

a worm with a plurality of teeth; and

a worm gear with a plurality of worm gear teeth; ~~and~~

where each tooth of the worm ~~teeth~~ and each tooth of the worm gear ~~teeth has ve~~ a concave profile in ~~a the~~ region near ~~a their tooth~~ base of the tooth and a convex profile in ~~a the~~ region near ~~a their tooth~~ tip of the tooth; and

where during a first period of time when the worm is rotated with respect to the worm gear a portion of the concave profile of a worm tooth meshes with a portion of the convex profile of a worm gear tooth such that linear contact occurs, where during a second period of time when the worm is rotated with respect to the worm gear a portion of the convex profile of a worm tooth meshes with a portion of the concave profile of a worm gear tooth such that linear contact occurs, and where the first and second periods of time are of a total duration such that the linear contact collectively spans a height of each worm tooth and a height of each worm gear tooth.

16. (Currently Amended) The gear assembly of claim 15, where the worm is metallic and the worm gear is plastic.

17. (Currently Amended) A gear assembly, comprising:

a metallic gear and a plastic mating gear each having teeth ~~via~~ which ~~they~~ engage ~~with~~ each other during rotation of the gear and the mating gear, ~~movement and power being~~

~~transmitted from the gear to the mating gear via effective profiles of their tooth faces and~~ where ~~a~~each ~~tooth~~ face of each tooth comprises a concave region and a convex region, where ~~profiles of the tooth faces of the gear and the mating gear are made such that a~~ linear contact over ~~a~~the height ~~(h_4, h_5)~~ of each of the teeth occurs ~~comes about~~ when the teeth of the gear and the mating mesh during rotation of the gears, and where the linear contact is ~~being formed in~~ such ~~a way~~ that the convex region of a gear tooth and the concave region of a mating gear tooth ~~faces of the teeth of the gear and mating gear~~ are in contact with each other during a first portion of the rotation of the gears and such that the concave region of a gear tooth and the convex region of a mating gear tooth are in contact with each other during a second portion of the rotation of the gears.